Physics

Recommended Time Table

Class-10

Chapter Names	Concepts	
1. Light - I (6 hours)	• Reflection • Mirrors - Plane • Spherical mirrors	**(1 hour)**
	• Refraction • Total internal reflection • Spherical refracting surface	**(1 hour)**
	• Problems and exercises	**(3 hours)**
	• Doubts Clarification	**(1 hour)**
2. Light - II (8 hours)	• Human eye • Far and near points • Defects of vision	**(2 hours)**
	• Refraction of light through a prism • mirage • scattering of light • Dispersion	**(1 hour)**
	• Telescopes • Theories of light • EM spectrum	**(1 hour)**
	• Problems and exercises	**(3 hours)**
	• Doubts Clarification	**(1 hour)**
3. Electrostatics (6 hours)	• Electrification • Coulomb's law • Principle of superposition	**(1 hour)**
	• Electric field • Potential • Capacitors • Grouping of capacitors	**(1 hour)**
	• Problems and exercises	**(3 hours)**
	• Doubts Clarification	**(1 hour)**
4. Current Electricity (8 hours)	• Electric current • Electric circuits • Electric potential	**(1 hour)**
	• Cells in Series and parallel • Ohm's law • Resistance	**(1 hour)**
	• Semiconductors • Diode • Transistors	**(1 hour)**
	• Factors affecting resistance • Grouping of resistances	**(1 hour)**
	• Problems and exercises	**(3 hours)**
	• Doubts Clarification	**(1 hour)**
5. Heating & Chemical Effects of Electric Current (5 hours)	• Electric energy, Power, Fuse, Circuit breakers, Earthing	**(1 hour)**
	• Electrolysis, Faraday's laws, Applications	**(1 hour)**
	• Problems and exercises	**(2 hours)**
	• Doubts Clarification	**(1 hour)**
6. Magnetic Effects of Electric Current (6 hours)	• Magnetic field pattern due to (i) straight conductor carrying current (ii) a circular loop carrying current (iii) a solenoid Electromagnet-Factors affecting its strength	**(1 hour)**
	• Force on a current carrying conductor - magnetic field • Fleming's left hand rule • Electromagnetic induction • Transformer	**(2 hours)**
	• Problems and exercises	**(2 hours)**
	• Doubts Clarification	**(1 hour)**
7. Heat (5 hours)	• Heat energy • Specific heat capacity • Principle of calorimetry	**(1 hour)**
	• Change of state • Latent heat of fusion	**(1 hour)**
	• Problems & exercises	**(2 hours)**
	• Doubts Clarification	**(1 hour)**
8. Modern Physics (6 hours)	• Mass defect • Binding energy • Radioactivity Properties of α, β, γ particles	
	• Half life Decays - α, β, γ	**(2 hours)**
	• Radioactive dating • Nuclear reactions	**(1 hour)**
	• Problems and exercises • Doubts Clarification	**(3 hours)**

Chapter Names	Concept	Problems	Total No.of hours
1. Light – I	*2*	*4*	*6*
2. Light – II	*4*	*4*	*8*
3. Electrostatics	*2*	*4*	*6*
4. Current Electricity	*4*	*4*	*8*
5. Heating & Chemical Effects of Electric Current	*2*	*3*	*5*
6. Magnetic Effects of Electric Current	*3*	*3*	*6*
7. Heat	*2*	*3*	*5*
8. Modern Physics	*3*	*3*	*6*